

SKY SCANNER

National Weather Service Forecast Office
Aberdeen, South Dakota

October 2007



South Dakota Winter Preparedness Week

October 22-26

Minnesota Winter Weather Awareness Week

November 12-16



The state of South Dakota has developed a website where you can go to find information on how to keep yourself safe in different types of disasters. The main website is: www.breadysd.com. Once on the site...click on "breadysd for Anything" at the top of the page...then on "Winter Storms and Extreme Cold" to get information on everything from winter terms to supplies needed for a winter emergency kit to the best sources for winter information. Don't wait for the first big snowstorm to hit...familiarize yourself now with what to do to keep you and your family safe throughout the quickly approaching winter season.

INSIDE THIS ISSUE:	PAGE
Winter Preparedness/Awareness Week	1
Stay Ahead of the Storm	2
Cold Temperatures and Wind Mean Windchills	3
La Nina Developing	4
Winter Season Outlook Charts	5
TWEB's Go Away	6
New Employees	7
Wind Chill Chart	8

1-605-225-0519

When significant or unusual weather events occur, give us a call! We're always happy to hear from the public, especially if you're calling to report rain or snow amounts or severe weather conditions. Don't wait until the next day...call us when it's happening.

Stay Ahead of the Storm

by Jennifer Zeltwanger

Winter weather is one of the easier weather events to prepare for in advance due to the slower evolution and development of major winter storm systems. The National Weather Service is able to get watches and warnings out with more advance notice, also known as lead time, than with most severe weather. Everyone should take advantage of this extra time to prepare before the storm strikes. Vehicles should be checked and winterized beforehand to ensure they are ready for the changing weather. Each vehicle should have a winter survival kit. Each kit, at a minimum, should include:

- Blankets or a sleeping bag
- Extra dry clothes
- Windshield scraper
- Non-perishable food (with can opener, if needed)
- Water (1 gallon per person per day)
- Small shovel
- All-in-one pocket knife tool
- Jumper cables
- First aid kit and extra prescription medication
- Flashlight with extra batteries
- Candle in fireproof container
- Matches
- Toilet paper
- Sand
- Empty coffee can to melt snow or build a small fire
- Map and compass



If you know a winter storm is coming, it is best to cancel your travel plans or find an alternate route to avoid the threat. When doing any traveling in the winter, you should make sure others know your route in case you become stranded. You should also check in with a contact periodically to inform them of your progress. If you do become stranded in your vehicle, stay put! It is very easy to become disoriented in snow and blowing snow, so it is best to stay near the shelter your vehicle provides.

You should also have a survival kit in your home and at work in case winter weather strikes. This kit should include things like:

- NOAA Weather Radio with extra batteries
- Extra water (1 gallon per person per day)
- Non-perishable food (with can opener, if needed)
- First aid kit with extra prescription medication
- Sleeping bags, blankets and extra clothing
- Utility knife
- Flashlight with extra batteries
- Emergency candles
- Pet items, if applicable
- Matches
- Sanitation supplies like buckets, disinfectant, person hygiene items
- List of emergency contacts
- Money/wallet/purse
- Extra keys
- Corded phone in case of power loss
- Legal papers in a waterproof container



Once you have a kit together, you should develop a plan in case an emergency does strike. This should include things like meeting places for family members and an out-of-state contact to be the liaison in case family members are split up. Once you have your emergency plan in place, you need to practice it to find any flaws. Such real-time drills ensure a sound and safe plan for you and your family.

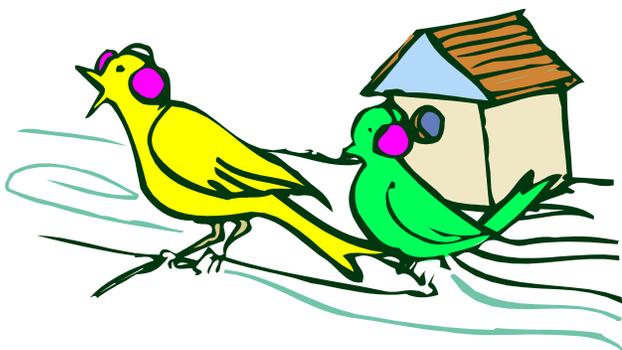
When it comes to winter weather, it is very important to stay informed of the developing weather situation. You can do this by tuning into NOAA Weather Radio or your favorite media outlet. You can also get updated weather information on our website at weather.gov/aberdeen. By staying ahead of the storm, you can be sure you are prepared for any inclement weather. Additional winter weather and preparedness information is available at <http://www.weather.gov/os/winter/index.shtml>.

Cold Temperatures and Wind Mean Windchills:

by Jennifer Zeltwanger

As temperatures continue to drop from Fall to Winter months, dangerous windchills become an increasing threat. The National Weather Service issues Windchill Watches, Warnings and Advisories when dangerous windchill readings are expected. A Windchill Advisory is issued when readings of -20°F to -35°F will be possible, with 10 mph or stronger wind. In these situations, it can take only 30 minutes for exposed skin to experience frostbite. A Windchill Warning is issued when 10 mph or stronger winds will produce windchill readings of -35°F or colder. The situations are even more dangerous as exposed skin can experience frostbite in an even shorter amount of time, 10 minutes or less! Whenever a Windchill Warning or Advisory is issued, it is a good idea to stay out of the elements. If you do need to go outside, be sure to cover any exposed flesh to diminish the frostbite threat.

Using the chart on the back page, you can calculate the windchill using a temperature reading and wind speed. The corresponding windchill reading falls within certain shaded areas that indicate frostbite times: medium blue for 30 minutes, dark blue for 10 minutes, and purple for 5 minutes. You can use this chart at home to get an idea of how cold the body thinks the temperature is when wind is taken into account. Stay tuned to NOAA Weather Radio or your favorite local media outlet when extreme windchills are possible in order to get the latest information. You can also find information on our website, www.weather.gov/aberdeen.



Remember to set your clocks back one hour at 2:00 am on November 4th.



La Nina Developing

by Dan Mohr

A La Nina episode is expected to develop over the next few months across the central and eastern equatorial Pacific. The development of La Nina conditions is supported by the increasing below-normal sea surface temperatures across the central and eastern equatorial Pacific, and stronger than average easterly winds across the west-central equatorial Pacific.

La Nina refers to the periodic cooling of ocean temperatures in the central and east-central equatorial Pacific that occurs every three to five years. La Nina originally referred to a cooling of ocean waters off the coasts of Ecuador and Peru. NOAA declares the onset of a La Nina event when the three-month average sea-surface temperature departure exceeds -0.5 degrees Celsius (-0.9 degrees F) in the east-central equatorial Pacific, between 5 degrees North and 5 degrees South latitude and 170 degrees and 120 degrees West longitude. Just like the Pacific warm episode (El Nino), La Nina also results in changes in the intensity and distribution of rainfall in the Tropics and in changes in the patterns of sea level pressure and atmospheric circulation that affect many areas worldwide. NOAA operates a network of 70 stationary buoys in the equatorial Pacific, called the Tropical Atmosphere/Ocean (TAO) Array, which provides data about upper-ocean and sea surface conditions. Other important data come from satellites, radiosondes, and the high-density U.S. surface data network.

La Nina conditions tend to influence wintertime atmospheric flow across the eastern North Pacific and North America. La Nina episodes display considerable event-to-event variability and the overall effects for a particular La Nina tend to be less predictable than those for an El Nino.

Typically during La Nina winters, large portions of central North America experience increased storminess and precipitation, and increased frequency of significant cold-air outbreaks while the southern states experience less storminess and precipitation. There also tends to be considerable month-to-month variations in temperature, precipitation, and storminess across central North America during the winter and spring seasons, in response to the more variable atmospheric circulation throughout the period. It is important to point out that there are several other climatic factors that affect the weather in a region and La Nina is just one of those factors.

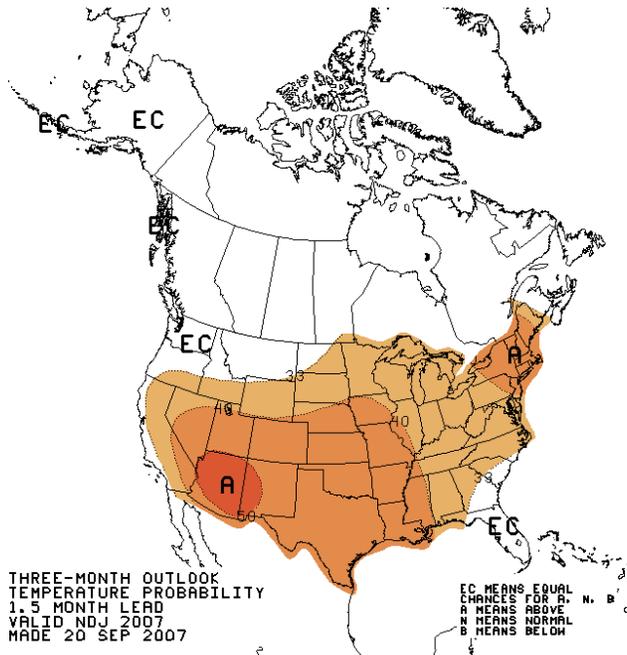
The latest Climate Prediction Center (CPC) Outlooks for our region show a slightly enhanced probability of above normal temperatures and equal chances of below, near, and above normal precipitation. The new winter outlook will be coming out in the middle of November for the months of December, January, and February and La Nina will definitely be a factor .



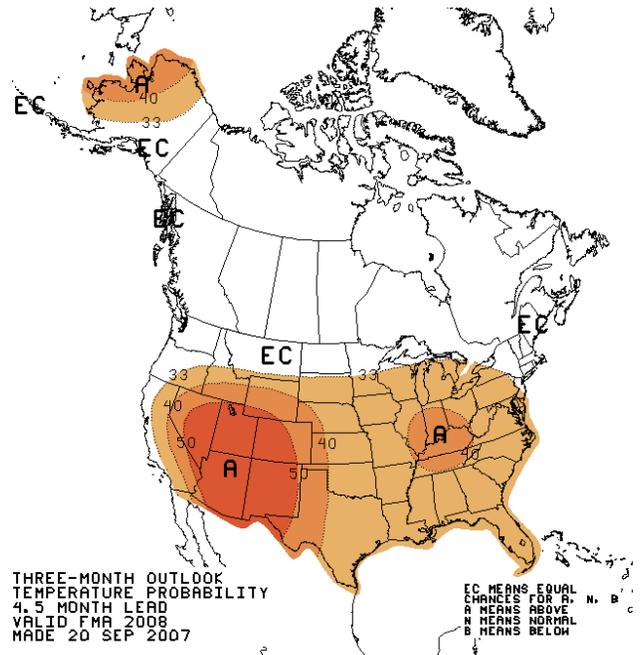
Winter Season Outlook Charts

Temperature

November-January

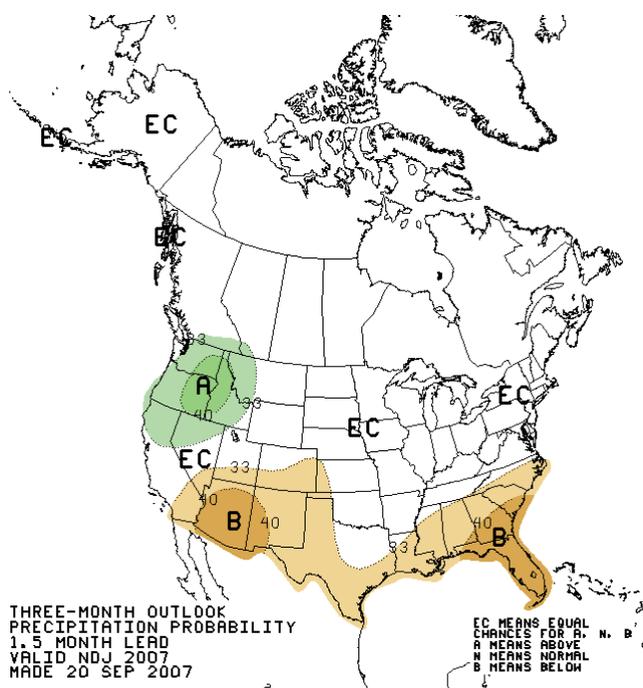


February-April

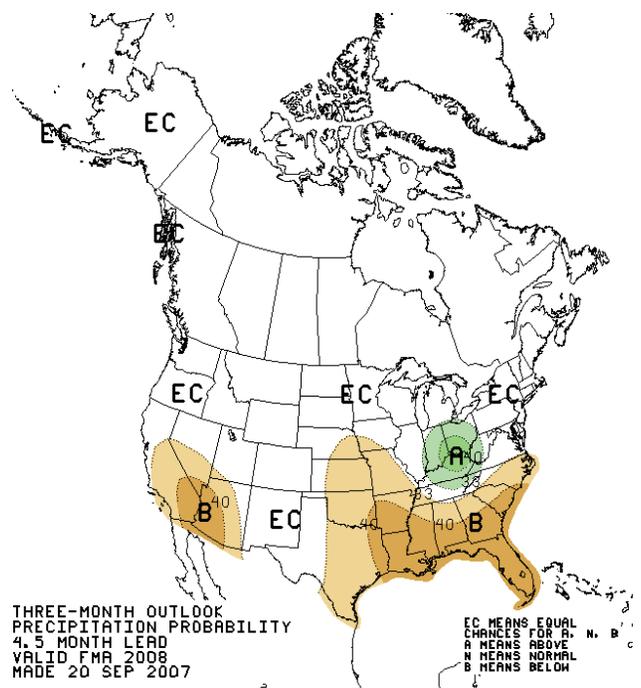


Precipitation

November-January



February-April



Transcribed Weather Enroute Briefings (TWEBs) Go Away

by Aaron Dorn

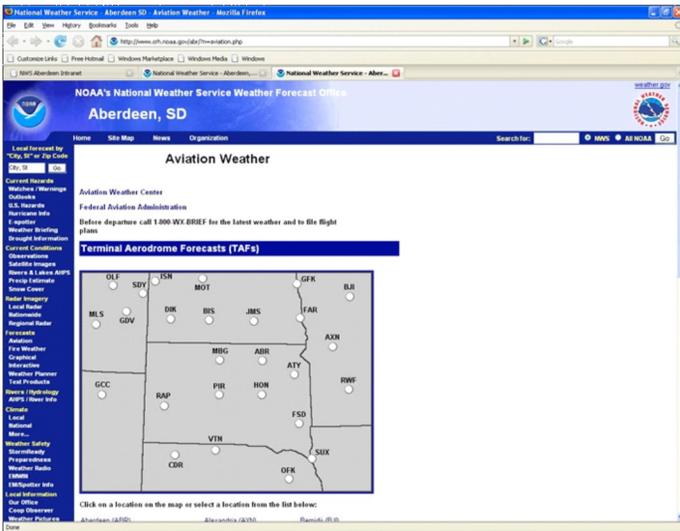
The September 29th, 2007, 3 pm CDT (20Z) set of TWEBs 256 (Sioux Falls to Bismarck) and 257 (Sioux Falls to Fargo) were the last set of TWEBs that the NWS in Aberdeen will ever issue. In fact, the NWS, nationwide, discontinued TWEB products, effective 7 pm CDT on September 29th, based off of feedback from its intended user community.

For many years, the TWEB product was disseminated to forecast expected surface weather conditions along specific corridors of air travel. Most all of the information that could be provided by the TWEB forecasts is available online at the Aviation Weather Center website. The future of NWS services available for aviation flight-planning will be a combination of TAF forecasts, the detailed and useful information from the Aviation Weather Center Aviation Digital Data Services (ADDS), Aviation Forecast Discussions, and (eventually) Aviation gridded products which will one day be made available from the National Digital Forecast Database (NDFD).

The National Weather Service Aberdeen website includes the following "Aviation" link on its left-hand menu:

<http://www.crh.noaa.gov/abr/?n=aviation.php>

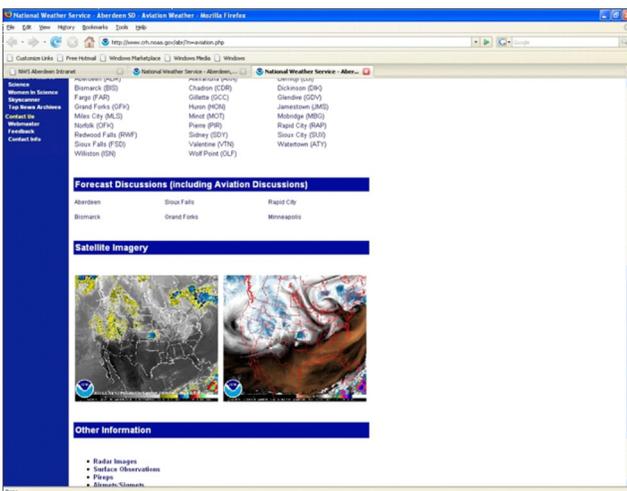
It's a one stop shopping site for pilots who like to brief themselves on expected weather conditions. It looks like this:



Also, check out the Aviation Digital Data Service (ADDS) available from the Aviation Weather Center for even more winter-time flight weather details. The ADDS website is:

<http://adds.aviationweather.gov/>

You can contact us here at the NWS in Aberdeen at 605 225 0519, or stop by if you'd like a first hand look at current weather conditions. And, as always, for your Official Flight Weather Briefing, contact your local FAA Flight Service Station at 1800 WX BRIEF.



Also, check out the Aviation Digital Data Service (ADDS) available from the Aviation Weather Center for even more winter-time flight weather details. The ADDS website is: <http://adds.aviationweather.gov/>

You can contact us here at the NWS in Aberdeen at 605 225 0519, or stop by if you'd like a first hand look at current weather conditions. And, as always, for your Official Flight Weather Briefing, contact your local FAA Flight Service Station at 1800 WX BRIEF.

New Employees

Mike Fowle

Science and Operations Officer



Hello! My name is Mike Fowle and I am the new Science and Operations Officer at the National Weather Service in Aberdeen. I am very excited to be here and look forward to discovering all that South Dakota has to offer! My job has several important roles. First, I serve as the office's scientific advisor, ensuring that all products we issue have both scientific and technical integrity. Second, I oversee the transfer of new, cutting-edge technology into forecast operations. Finally, I am responsible for developing and conducting office training. I am originally from Milwaukee, Wisconsin, and am a bonafide "cheesehead." I received a Bachelor's degree in meteorology from Saint Louis University, and a Master's degree in atmospheric sciences from the University of Wisconsin-Milwaukee. I started my National Weather Service career in Phoenix, Arizona, and most recently worked at the NWS office near Sullivan, Wisconsin (located between Milwaukee and Madison). My wife Colleen and I have been married for 6 years. We have one daughter, Elena, who is 15 months old and a yellow Labrador named Shadoe. In my spare time, I enjoy hunting, fishing, and watching college and professional sports. Go Packers! I hope to meet many of you around town, and look forward to serving everyone throughout our forecast area in South Dakota and west central Minnesota.

Mike Connelly

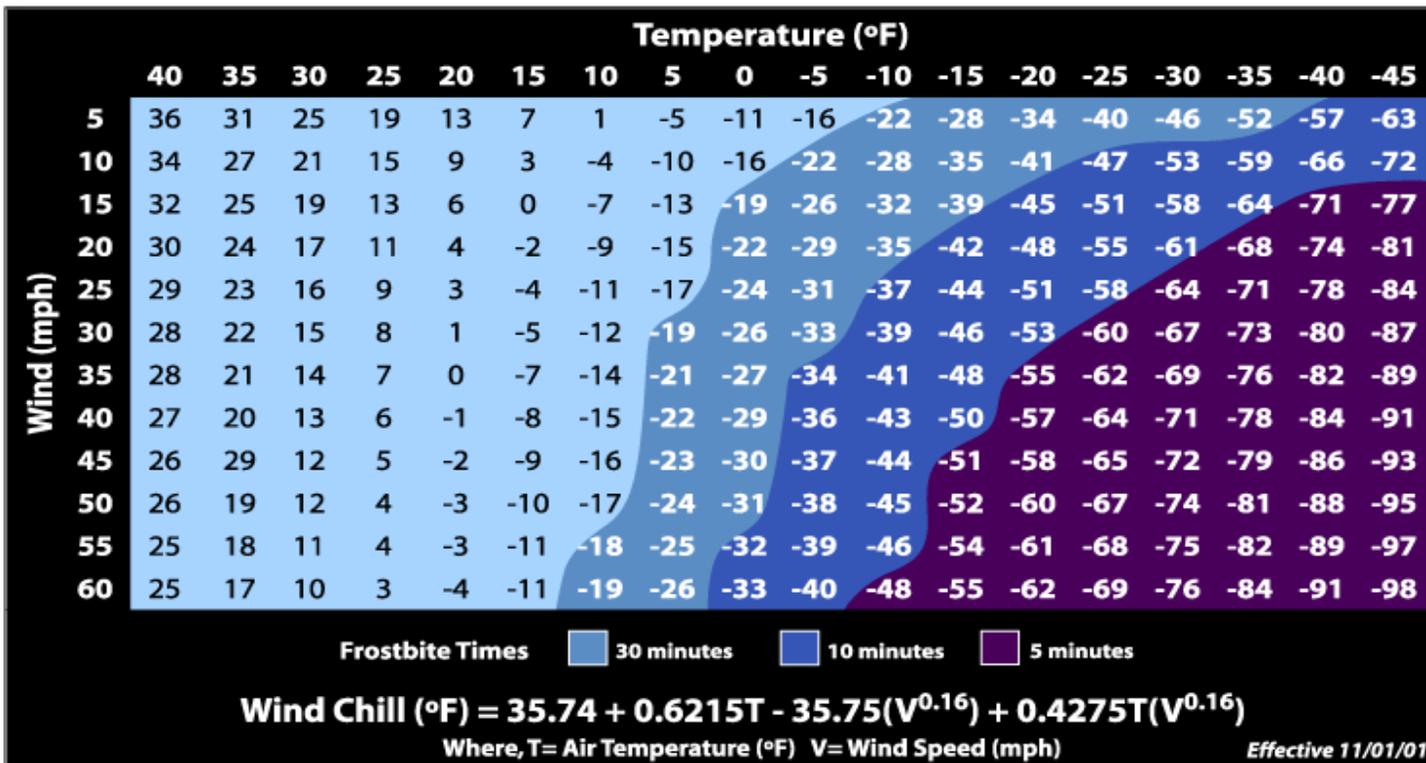
General Forecaster



Mike was born and raised in Albany, NY. His first memorable weather experience was writing in the school paper about the 1993 Superstorm, and decided on a weather forecasting career from there. In 1998, Mike graduated with a Bachelors degree in Meteorology from the State University of New York in Oswego, and a Masters degree in Atmospheric Sciences from South Dakota School of Mines and Technology in Rapid City in 2000. Mike decided on a career in the United States Air Force in early 2001 and witnessed the horrors of September 11, 2001 from his classroom at Officer Training School. Mike knew from there that in his USAF career he'd play an important part in the conflicts that would follow. As a newly commissioned officer, Mike became a forecaster for the Special Operations weather unit at Offutt Air Force base in Omaha, NE, helping to oust the Taliban and Hussein regimes. Mike's career took an interesting turn when he accepted a second assignment forecasting for the 82d Airborne at Fort Bragg, NC. With the 82d Airborne, Mike was trained in all manners of Infantry Combat, to include Parachutist qualifications, and deployed twice to Iraq to support the United States Army. In 2005 Mike decided to separate to seek a career with the National Weather Service as an Meteorologist Intern at WFO State College in Pennsylvania where he spent the last 14 months. In August, Mike joined us at WFO Aberdeen.



Wind Chill Chart



National Weather Service
 824 Brown Co 14 S
 Aberdeen SD 57401

OFFICIAL BUSINESS
 PENALTY FOR PRIVATE USE, \$300

Autumn is a second
 spring when every leaf is
 a flower.
 ~Albert Camus

We're on the Internet
www.weather.gov/aberndeen